

### **Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application. The following listing provides the amended claims with deleted material crossed out and new material underlined to show the changes made.

1-19. (Canceled)

20. (Currently Amended) A method for creating a description of a user interface that transacts with a database having a data model comprising a plurality of entities, the method comprising:

- a) receiving a request for the user interface from a client;
- b) after receiving said request, classifying the plurality of entities into

entity types, the classifying comprising:

iteratively determining whether each entity in the plurality of entities satisfies a set of conditions; and

when an entity satisfies the set of conditions, classifying the entity as a particular entity type for which a user interface element is created within a particular window of a set of windows, wherein the user interface element provides access to said entity through the user interface;

c) creating the description of the user interface with at least one user interface element based upon the classification of the plurality of entities; and

d) distributing the description to said client in order to allow said client to generate user interface elements of said user interface that permits a user to transact with said database.

21. (Previously Presented) The method of claim 20 wherein:

each entity in the data model describes a type of data object associated with the database; and

the classifying produces the particular entity type for a first group of data objects and a second different entity type for a second group of data objects, the data objects in the first group of data objects being updated in the database more frequently than the data objects in the second group of data objects.

22. (Previously Presented) The method of claim 21 wherein the particular entity type is a Main entity type and the second different entity type is an Enumeration entity type.

23. (Previously Presented) The method of claim 20 wherein the description is a generic description configured to be interpreted in different platforms or operating environments.

24. (Previously Presented) The method of claim 20 wherein the description is in eXtensible Markup Language (XML).

25. (Previously Presented) The method of claim 20 wherein the classifying and creating are performed automatically without human assistance.

26. (Previously Presented) The method of claim 20 further comprising:

before the classifying, obtaining a current data model of the database, the current data model reflecting any changes to the database up to when the current data

model is obtained, wherein a current description of the user interface is created using the current data model of the database.

27. (Previously Presented) The method of claim 20 further comprising:

after sending the description, retrieving data from the database, said data for populating at least one generated user interface element; and

sending the data to the client, said data sent prior to receiving any transaction from said user.

28-30. (Canceled)

31. (Currently Amended) A computer readable medium of a computer system implementing a server application, the computer readable medium storing a computer program which when executed by at least one processor of the computer system creates a description of a user interface that transacts with a database having a data model comprising a plurality of entities, the computer program comprising:

a) a set of instructions for classifying the plurality of entities into entity types, the instructions for classifying comprising:

a set of instructions for iteratively determining whether [[a]] each entity in the plurality of entities satisfies a set of conditions; and

a set of instructions executed when an entity satisfies the set of conditions, said set of instructions for classifying the entity as a particular entity type for which a user interface element is created within a particular window of a set of windows,

wherein the user interface element provides access to said entity through the user interface;

b) a set of instructions for creating the description of the user interface with at least one user interface element based upon the classification of the plurality of entities.

32. (Previously Presented) The computer readable medium of claim 31 wherein the description is a generic description configured to be interpreted in different platforms or operating environments.

33-34. (Canceled)

35. (Previously Presented) A method for generating a user interface on a client computer system that transacts with a database of a server computer system, said database having a data model comprising a plurality of entities, the method comprising:

    sending a request for the user interface from the client computer system to the server computer system;

    receiving a description of the user interface at the client computer system, the description being based upon a set of conditions that classify the plurality of entities into entity types, said classification of the entities initiated by the request, wherein when an entity satisfies the set of conditions, the classification comprises classifying the entity as a particular entity type for which a user interface element is created within a particular window of a set of windows in the description of the user interface, wherein the user interface element provides access to said entity through the user interface; and

generating the user interface with at least one user interface element using the description of the user interface, wherein said user interface allows a user to transact with said database.

36. (Previously Presented) The method of claim 35 further comprising:

after the generating, receiving data from the database in order to populate the at least one user interface element of said user interface, said data received prior to receiving any transaction from said user.

37. (Previously Presented) The method of claim 35 further comprising, before the receiving:

sending preferences for the user interface, the preferences being utilized to create a custom user interface description based on the specified preferences.

38. (Previously Presented) The method of claim 35 further comprising, before the receiving:

sending authentication information.

39-41. (Canceled)

42. (Previously Presented) A computer readable medium of a computer system, the computer readable medium storing a computer program which when executed by at least one processor of the computer system generates a user interface that transacts with a database of a server device having a data model comprising a plurality of entities, the computer program comprising:

a set of instructions for receiving a description of the user interface, the description being based upon a set of conditions that classify the plurality of entities into entity types, wherein the classification comprises classification of an entity as at least (i) a first entity type for which a user interface element is created within a first window of a set of windows in the description of the user interface in order to access said entity upon determining that the entity satisfies the set of conditions and (ii) a second entity type for which a user interface element is created within a second window of the set of windows in the description of the user interface in order to access said entity upon determining that the entity does not satisfy the set of conditions; and

a set of instructions for generating the user interface with at least one user interface element using the description of the user interface.

43. (Previously Presented) The computer readable medium of claim 42 wherein the description of the user interface is created using a current data model of the database, the current data model reflecting any changes to the database up to when the description is created.

44. (Previously Presented) The computer readable medium of claim 42, wherein the computer program further comprises:

a set of instructions for sending preferences for the user interface, the preferences being utilized to create a custom user interface description based on the specified preferences.

45. (Canceled)

46. (Previously Presented) A system comprising:

a first computer system comprising (i) a database having a data model comprising a plurality of entities, and (ii) a server communicatively coupled to the database for creating a description of a user interface that transacts with the database, the description being based upon a set of conditions that classify the plurality of entities into entity types, wherein when an entity satisfies the set of conditions, the classification comprises classifying the entity as a particular entity type for which a user interface element is created within a particular window of a set of windows in the description of the user interface, wherein the user interface element provides access to said entity through the user interface; and

a second computer system comprising a client for receiving the description from the server and for generating the user interface as defined within the description.

47. (Previously Presented) The system of claim 46 wherein the server obtains a current data model of the database, the current data model reflecting any changes to the database up to when the current data model is obtained, a current description of the user interface being created using the current data model of the database.

48. (Previously Presented) The system of claim 46 wherein the server is in persistent communication with the database.

49. (Previously Presented) The system of claim 46 wherein the server of the first computer system is communicatively coupled to the client of the second computer

system via a network and distributes the created description to the client for enabling the client to generate the user interface.

50. (Previously Presented) The system of claim 49 wherein the server of the first computer system provides the client of the second computer system an only point of access to the database of the first computer system.

51. (Previously Presented) The system of claim 49 wherein the server of the first computer system is communicatively coupled, via the network, to a client of a third computer system having a different platform or operating environment than the client of the second computer system, and distributes the created description to the client of the third computer system for enabling the client of the third computer system to generate the user interface.

52-74. (Canceled)

75. (Previously Presented) The method of claim 20, wherein said request from said client initiates the classification of the entities into entity types.

76. (Previously Presented) The method of claim 20, wherein each entity corresponds to at least one table of said database.

77. (Currently Amended) The computer readable medium of claim 31 further comprising a set of instructions for sending said description to said client in order to allow said client to generate elements of said user interface from said description, said user interface elements allowing a user of said client to transact with said database.



78. (Previously Presented) The computer readable medium of claim 31, wherein an entity describes a data object of said database through properties comprising at least one of an attribute and a relationship.

79. (Previously Presented) The computer readable medium of claim 78, wherein the entity corresponds a table of said database.

80-83. (Canceled)

84. (Currently Amended) A computer implemented method of providing a user interface, said method comprising:

- a) obtaining a data model of a database representing an organization of a plurality of data entities of the database;
- b) receiving a request for a user interface from a client;
- c) in response to the request, dynamically creating a description of said user interface (i) by using a set of heuristics to select a set of data entities from the plurality of data entities for access by the client through a primary window of the description based on a relevancy of the set of data entities to the client, and (ii) by providing a set of tasks operable on each data entity; and
- d) sending said description to said client in order to allow said client to generate said user interface from said description, said user interface comprising user interface elements that permit a user of said client to implement one of said set of tasks in order to transact with said database in a manner conforming to said data model.

85. (Previously Presented) The method of claim 84, wherein the obtaining the data model comprises at least one of:

extracting the data model from said database, and

building the data model from data that exists in said database.

86. (Previously Presented) The method of claim 84, wherein each data entity corresponds to at least one table of said database.

87. (Canceled)

88. (Canceled)